

**REMARKS**

Claim 45 is amended to correct a typographical error, and therefore, is not a narrowing amendment. Claims 45-66 remain in the application. Reconsideration of the application in view of the amendments and the remarks to follow is requested.

The amendment filed December, 12, 2003 is objected to for introducing new matter specifically referring to claims 54, 58 and 61. Claims 54 and 58 recite a silicon dioxide layer comprises a thickness less than half a thickness of a second layer. Claim 61 recites an oxide layer comprising a thickness less than half a thickness of a second layer. An exemplary embodiment of Applicant's invention is disclosed by Fig. 6 which illustrates an exemplary oxide or silicon oxide layer 35 that comprises a thickness less than half a thickness of an exemplary second layer 20b. Applicant submits that Fig. 6 is sufficient and proper support for the claim language of claims 54, 58 and 61, and therefore, the objection to the amendment is inappropriate.

The Federal Circuit cited approvingly to a new matter analysis dealing with drawings that the Court of Customs and Patent Appeals provided in *In re Heinle*, 342 F.2d 1001, 145 USPQ 131 (CCPA 1965). *Vas-Cath vs. Mahurkar*, 935 F.2d 1559, 19 USPQ2d 1111, 1118 (Fed. Cir. 1991). The *Heinle* Court reversed a PTO rejection of an applicant's claims to a toilet paper core as including subject matter having no clear basis in the application as filed wherein the claim

limitation said to be without support required that the width of apertures in the core be “approximately one-fourth of the circumference of said core”. *Id.* The Examiner termed this a “mathematical dimension” having no specific mention of such in the *words* of the specification. *Heinle*, at page 136 (emphasis in decision). However, reviewing the application drawings, the *Heinle* Court stated that it seems to us that the drawings conform to the one-fourth circumference limitation almost exactly. *Heinle*, at page 136. That is, the application as filed had no dimensions or dimensional relationships stated in the specification, and yet, the *Heinle* Court found support for what the drawings did show, a dimensional relationship of one circumference relative another circumference. Importantly, the *Heinle* Court understood that patent drawings are not drawn to scale and cannot be relied upon to teach specific dimensions stating that patent drawings do not define the precise portions of elements depicted and thus may not be relied on to show particular distances or sizes when the specification is completely silent in that respect. *Heinle*, at page 136.

Based upon this authority, the language of claims 54, 58 and 61 are supported by Fig. 6 as Fig. 6 clearly illustrates a dimensional relationship between a oxide layer 35 and second layer 20b. Claims 54, 58 and 61 do not recite to any specific or precise dimensions. Additionally, claims 54, 58 and 61 do recite to a dimensional relationship (a thickness less than half a thickness) between an oxide layer and a second layer. Fig. 6 clearly illustrates such a

dimensional relationship. That is, Fig. 6 illustrates a oxide layer (or silicon dioxide layer) 35 comprises **a thickness less than half of a thickness** of the second layer 20b as positively recited in claim 61, and similarly, claims 54 and 58. Accordingly, pursuant to the above-authority, the previous amendment did not introduce new matter via the language of claims 54, 58 and 61 as Fig. 6 provides the necessary support. Consequently, the language of claims 54, 58 and 61 do not have to be canceled.

Moreover, the MPEP states "information contained in any one of the specification, claims or drawings of the application as filed might be added to any other part of the application without introducing new matter." MPEP §2163.06. If the Examiner desires to have the specification amended to include the language of claims 54, 58 and 61, Applicant will gladly do so.

Furthermore, claim 54 has no other rejections presented, and therefore, claim 54 is allowable.

Claims 45-53 and 55-66 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yang et al. (6,040,238) in view of Ilg et al. (6,130,145).

Independent claim 45 recites a second layer comprising silicide doped to a concentration of greater than  $1 \times 10^{18}$  atoms/cm<sup>3</sup> with conductive-enhancing dopant, and the second dioxide layer being formed by oxidizing an upper surface of the second layer during rapid thermal processing of the second layer. Yang and Ilg, singularly or in any combination, fail to teach or suggest this positively

recited limitation. The Examiner states since this is a product-by-process limitation and since the combination of Yang and Ilg teach the recited structure of claim 45, the product-by-process limitation does not structurally or patently distinguish the claimed invention from that taught by the prior art, no matter how it is actually made (pages 3 and 11 of paper no. 31104). However, the Examiner is respectfully reminded that once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to the Applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. MPEP §2113 citing to *In re Marosi*. 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983).

Applicant directs the Examiner's attention to page 8 of the originally-filed application which describes exemplary rapid thermal processing as claimed and specifically states at lines 13-15, "[s]uch RTP can activate dopant within polycide layer 20b to increase the conductivity of doped polycide layer 20b. Applicant submits that "to increase the conductivity of doped polycide layer 20b" is clear evidence establishing an unobvious difference between the claimed product and the prior art product. Consequently, pursuant to the above-authority, the limitation of claim 45 distinguishes Applicant's invention over the prior art combination of Yang and Ilg, and therefore, claim 45 is allowable. Applicant respectfully requests allowance of claim 45 in the next office action.

Claims 46-54 depend from independent claim 45, and therefore, are allowable for the reasons discussed above with respect to the independent claim, as well as for their own recited features which are not shown or taught by the art of record.

Independent claim 55 recites a conductive-enhancing dopant for a second layer comprises a group III or a group V element **other than boron, phosphorous and arsenic**. The Examiner correctly states that Yang fails to teach this limitation and relies on the teaching of Ilg which refers to a metal silicide that “comprises dopants, which are either p- or n-type” (col. 4, lines 35-37). However, the Federal Circuit has stated that “the fact that a claim species or subgenus is encompassed by prior art genus is not sufficient by itself to establish a *prima facie* case of obviousness. *In re Baird*, 16 F.3d 380, 382, 29 USPQ2d 1550, 1552 (Fed. Cir. 1994); MPEP §2144.08. MPEP §2144.08 further states that Office personnel should establish a *prima facie* case of unpatentability considering the factors set out in the Supreme Court in *Graham vs. John Deere* wherein the one factor is to determine the scope and content of the prior art and then consider the differences between the prior art and the claims in issue. MPEP §2144.08. Finally, Office personnel should evaluate the totality of the facts and all the evidence to determine whether they should still support a conclusion that the claimed invention would have been obvious to one of ordinary skill in the art at the time the invention was made. MPEP §2144.08.

Applicant submits that the scope and content of the prior art can be addressed, at a minimum, by determining what dopants are used for silicide layers in the context of the reference Ilg considered in its entirety. Ilg teaches that the dopant types of the silicide are "the same, when applicable, as the doped poly layer 230" (col. 4, lines 38-40) wherein "[s]uch dopants, for example, include phosphorous (P), arsenic (As), or boron (B)" (col. 4, lines 11-13). Applicant submits that this teaching of Ilg defines the scope and content of the dopants for silicide layer to include only phosphorous, arsenic and boron. The teaching should be interpreted to read that the silicide can be doped with one type of dopant, or the other type of dopant, to help the reader to remember there are two types to consider, and that the p-type dopant includes phosphorous and the n-type dopant includes arsenic or boron. Accordingly, it is inconceivable that Yang and Ilg, singularly or in any combination, established a *prima facie* case of obviousness of the teaching to a conductive-enhancing dopant for a second layer comprises a group III or a group V element **other than boron, phosphorous and arsenic** as positively recited in claim 55. Since the art fails to teach or suggest this positively recited limitation of claim 55, claim 55 is allowable.

Claims 56-60 depend from independent claim 55, and therefore, are allowable for the reasons discussed above with respect to the independent claim,

as well as for their own recited features which are not shown or taught by the art of record.

Regarding independent claim 61, such claim recites an oxide layer over and physically against a second layer (silicide), the oxide layer comprising a thickness less than half a thickness of the second layer. In the previous response, Applicant clearly demonstrated that Yang and Ilg, singularly or in any combination, fail to teach this limitation. In the present office action (paper no. 31104), the Examiner only addresses this claim by stating that this limitation introduces new matter (page 10 of paper no. 31104). However, as stated above, Fig. 6 provides sufficient and appropriate support for this recited limitation of claim 61, and therefore, claim 61 does not recite new matter. Since no other rejection is presented against claim 61, claim 61 is allowable.

Claims 62-66 depend from independent claim 61, and therefore, are allowable for the reasons discussed above with respect to the independent claim, as well as for their own recited features which are not shown or taught by the art of record.

This application is now believed to be in immediate condition for allowance, and action to that end is respectfully requested. If the Examiner's next anticipated action is to be anything other than a Notice of Allowance, the undersigned respectfully requests a telephone interview prior to issuance of any such subsequent action.

Respectfully submitted,

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